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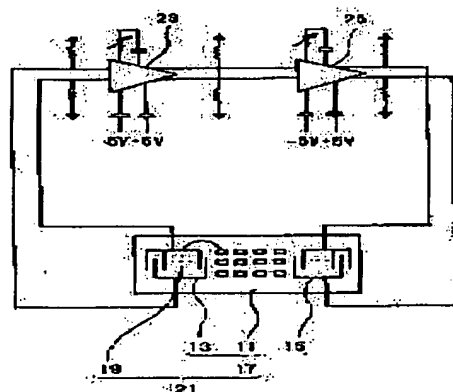
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(54) DETECTING METHOD OF FOOD-POISONING BACTERIA AND SENSOR
USING THE SAME

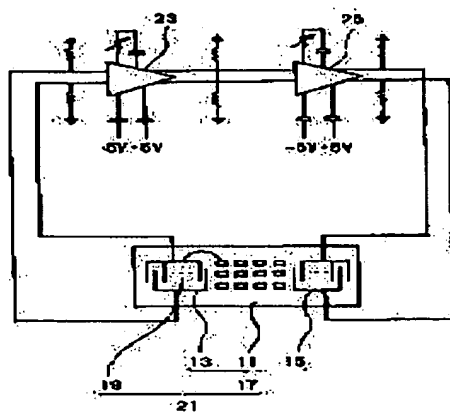
(57)Abstract:

PURPOSE: To detect a food-poisoning bacteria in a food constituent simply and quickly by bringing the food constituent into contact with a surface acoustic wave element on which an anti-food-poisoning bacteria



antibody is stuck and by measuring a change in a frequency before and after the contact.

CONSTITUTION: A surface acoustic wave oscillator 17 having transducers 13 and 15 provided on a crystal plate 11 of ST cut is covered with polystyrene and an anti-food-poisoning-bacteria antibody 19 is stuck between the



two transducers 13 and 15, whereby a sensor 21 is prepared. This sensor 21 is connected with amplifiers 23 and 25 and a frequency counter provided between them. A food constituent is brought into contact with the sensor 21, and based on a change in a frequency before and after the contact, a food-poisoning bacteria in the food constituent is detected. The sensor 21 is subjected to washing in three times by a phosphoric acid buffer and protection of a nonspecific adsorption site by calf serum albumin, so as to prevent fluctuation in the frequency due to a cause other than combination of the food-poisoning bacteria.

LEGAL STATUS

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